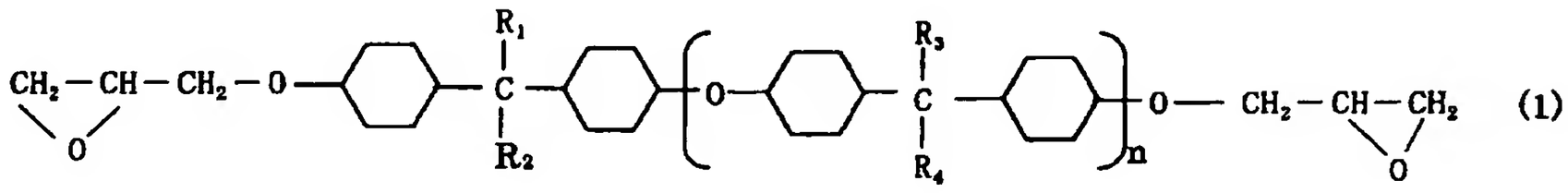
CLAIMS

1. A neutron shielding material composition comprising a hydrogenated bisphenol resin, a curing agent component, a density-increasing agent and a boron compound.

2. A neutron shielding material composition comprising a hydrogenated bisphenol epoxy represented by the following structural formula (1):



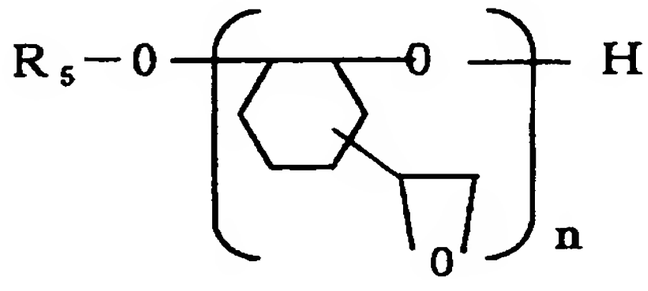
(1)

wherein each of R_1 to R_4 is independently selected from the group consisting of CH_3, H, F, Cl and Br, and n is from 0 to 2;

a curing agent component having at least one ring structure and a plurality of amino groups;

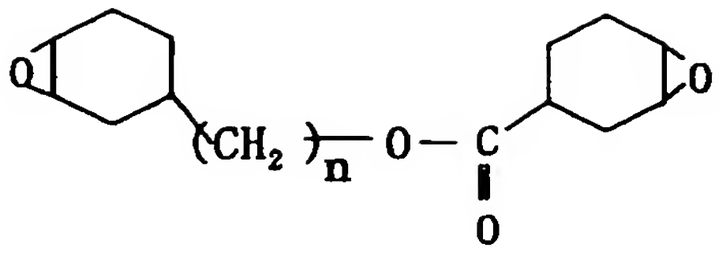
a density-increasing agent; and a boron compound.

3. The neutron shielding material composition according to claim 1 or 2, further comprising one or more compounds selected from the group consisting of a compound represented by the structural formulas (2), (3), (6) and (9):



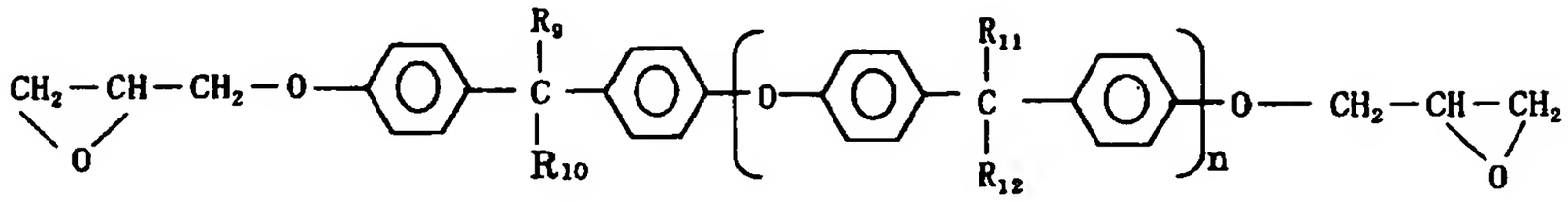
(2)

wherein R_5 is a $C_{1\text{-}10}$ alkyl group or H, and n is from 1 to 24;



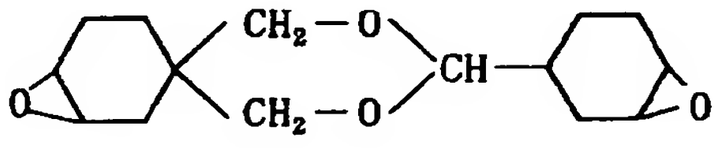
(3)

wherein n is from 1 to 8;



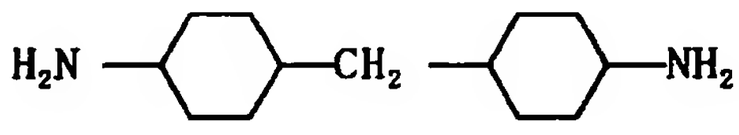
(6)

wherein each of R_9 to R_{12} is independently selected from the group consisting of CH_3, H, F, Cl and Br, and n is from 0 to 2; and



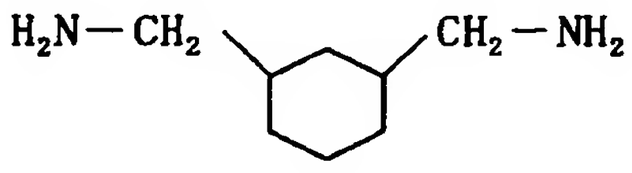
(9)

4. The neutron shielding material composition according to any of claims 1 to 3, comprising, as the curing agent component, a compound represented by the structural formula (4):



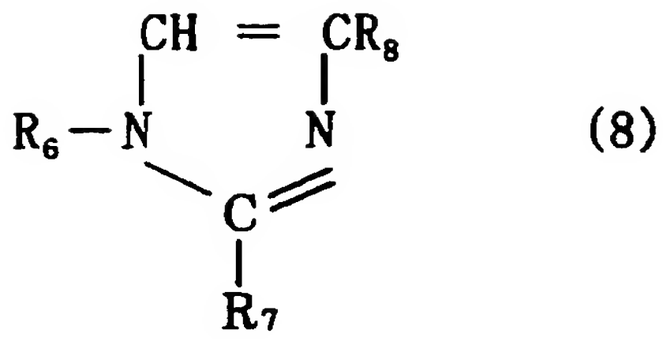
(4)

5. The neutron shielding material composition according to any of claims 1 to 4, wherein the curing agent component comprises one or more of compounds represented by the structural formulas (5) and (8):



(5)

and



(8)

wherein R_6, R_7 and R_8 each is independently a $C_{1\text{-}18}$ alkyl group or H.

6. The neutron shielding material composition according to any of claims 1 to 5, further comprising a filler.

7. The neutron shielding material composition according to any of claims 1 to 6, further comprising a refractory material.

8. The neutron shielding material composition according to claim 7, wherein the refractory material comprises at least one of magnesium hydroxide and aluminum hydroxide.

9. The neutron shielding material composition according to any of claims 1 to 8, wherein the density-increasing agent is a metal powder having a density of 5.0 to 22.5 g/cm^3, a metal oxide powder having a density of 5.0 to 22.5 g/cm^3, or a combination thereof.

10. A neutron shielding material obtainable from the neutron shielding material composition according to any of claims 1 to 9.

11. A neutron shielding container obtainable from the neutron shielding material composition according to claim 10.